

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A cyclone separator system for separating out solids from a particulate suspension, including a primary cyclone and a secondary cyclone disposed in a separator vessel having a pressure in excess of those inside the primary and secondary cyclones, comprising:

a cyclone separator leg which joins the lower end of a leg of the secondary cyclone and a leg of the primary cyclone to form a single primary and secondary cyclone leg complex where solids collected by both cyclones are combined,

wherein the leg of the primary cyclone extends substantially straight and vertically aligned with a center axis of the primary cyclone to a junction thereof with the leg of the secondary cyclone, the leg of said secondary cyclone is inclined with respect to a center axis of said secondary cyclone to extend from said secondary cyclone to said junction, and said separator leg extends substantially straight and vertically aligned with the center axis of the primary cyclone, from the junction and along a portion of a length thereof,

wherein said separator leg ~~terminates distally in an open, single termination that~~ is immersed into a fluidized bed of particles and terminates distally in an open, single termination devoid of movable sealing parts at all times, and

wherein said collected and combined solids are discharged from said separator leg through said open, single leg termination, and the level of said fluidized bed of particles within the cyclone legs being located above the junction of the lower ends of the secondary and primary cyclone legs.

Claim 2. (Canceled).

3. (Previously Presented) A system according to claim 7, wherein the radius-curve of the single leg termination has a ratio of radius/diameter within the range from 1.0 to 3.0.

4. (Previously Presented) A system according to claim 7, wherein said radius-curved single leg termination is constructed from a succession of straight tube sections in an arcuate array.

5. (Previously Presented) A system according to claim 4, wherein the succession of straight tube sections of the radius-curve direct a descending mass flow of dense phase solids into a plane orthogonal to an ascending gaseous flow.

6. (Previously Presented) A system according to claim 7, wherein, with respect to the centre line of an inlet to the radius-curved single leg termination, a junction of the leg of the primary cyclone and the leg of the secondary cyclone lies on the side opposite a distal end of the radius-curved termination and higher than the distal end by a distance in the range from 3.5 to 5.5 times a diameter of the leg of the primary cyclone.

7. (Previously Presented) A system according to claim 1, wherein the open, single leg termination is radius-curved.